## COMMENT SET 3: SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION (BCDC)


Making San Francisco Bay Better

February 24, 2010

California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, California 95825

**ATTENTION:** Mr. Scott McFarlin

**SUBJECT:** Shell Martinez Marine Oil Terminal Project, along the Carquinez Strait in the City of Martinez, Contra Costa County
SCH #2004072114
(BCDC Inquiry File No. CC.MZ.7134.4 (Shell Oil Company))

Ladies and Gentlemen:

On January 12, 2010, the San Francisco Bay Conservation and Development Commission (Commission) staff received the Notice of Availability for the Draft Environmental Impact Report (DEIR) for the continued operation of the Shell Martinez Marine Oil Terminal, along the southern shoreline of the Carquinez Strait in City of Martinez, Contra Costa County. The project would the granting of a new 30-year lease to the Shell Terminal by the State Lands Commission (SLC) as the terminal currently occupies approximately 19.26 acres of public lands owned by the SLC.

**Jurisdiction**

Based on the information in the DEIR, it appears that the proposed project is located within the Commission's jurisdiction which includes all tidal areas of the Bay, including sloughs, up to the line of mean high tide or up to the inland edge of marsh vegetation up to five feet above Mean Sea Level in marshlands, a shoreline band extending 100 feet inland from and parallel to the Bay jurisdiction, and former salt ponds that were operational between 1966 and 1969. The Commission also has jurisdiction over certain managed wetlands, salt ponds, and certain waterways.

**Permitting**

Since the proposed action involves obtaining a new 30-year lease for the terminal, a permit from the Commission will not be necessary at this time, as Section 1.4 of the DEIR, entitled "Permits, Approvals and Regulatory Requirements", correctly notes. However, it is our understanding that the Shell Terminal will likely need to perform various construction and retrofitting activities to upgrade the facility in order to meet the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS), which became effective on February 6, 2006. The MOTEMS standards apply to all existing and new marine oil terminals in California and include criteria for "inspection, structural analysis and design, mooring and berthing, geotechnical considerations, fire, piping, mechanical and electrical systems." If the Shell Terminal determines a need to upgrade any portion of their marine facility in the near future,

BCDC-1

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such as installing or replacing solid material (such as piles or dolphins), building or repairing docks, pile-supported or cantilevered structures, dredging or extracting material from the Bay bottom, or substantially change the use of any structure or area, the should contact the Commission at that time to obtain a permit.

BCDC-1 cont.

Thank you for the opportunity to comment on the DEIR. Please contact us if the California State Lands Commission has any questions about the Commission's permit procedures or policies at (415) 352-3668 or via email at maxd@bcdc.ca.gov.

Sincerely,

MAX DELANEY
Permit Analyst

MD

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## RESPONSE TO COMMENT SET 3: SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

**BCDC-1** The Applicant (Shell) states that it will contact the San Francisco Bay Conservation and Development Commission (BCDC) concerning the need for any BCDC permits if Shell is required to upgrade the Shell Martinez Marine Terminal in order to comply with the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). MOTEMS, which became effective on February 6, 2006, are codified as Title 24, California Code of Regulations (CCR), Part 2, California Building Code, Chapter 31F – Marine Oil Terminals (24 CCR § 3101F et seq.). The Final Environmental Impact Report (EIR) has been revised to include a better description of the MOTEMS.

## COMMENT SET 4: SAN FRANCISCO BAYKEEPER

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BAYKEEPER.

Scott McFarlin, Project Manager
California State Lands Commission
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mcfarls@slc.ca.gov
*sent via electronic mail*

February 24, 2010

Re: Shell Martinez Marine Oil Terminal DEIR, SCH # 2004072114

Dear Mr. McFarlin:

Please accept these comments, submitted on behalf of San Francisco Baykeeper, in opposition to the proposed Shell Martinez Marine Oil Terminal Project ("Project") DEIR. Baykeeper is deeply concerned about the numerous and significant impacts that the Project would have to the water quality of the San Francisco Bay for the next thirty years. The DEIR lacks significant information needed to adequately assess the extent of these impacts, and further, the DEIR must evaluate far more extensive mitigation measures to reduce or avoid this Project's serious and long-term impacts. It is our sincere hope that the State Lands Commission and all reviewing responsible agencies seize this environmental review process as an opportunity to ensure the best possible protections of our public waters and wildlife resources over the next thirty years. We look forward to your further review and analysis based on these comments.

### I. The DEIR's thresholds of significance are unclear, inconsistent, and fail to accurately measure the Project's significant environmental impacts.

The DEIR uses unwarranted and confusing exceptions to the San Francisco Bay's ambient water quality standards to determine the significance of the Project's water quality impacts. The DEIR states that "[i]mpacts are considered adverse but less than significant . . . if elevation of contaminant concentrations above criteria occurs only within a couple of hundred feet or less of the point of discharge for a few hours or less." (DEIR 4.2-34.) Nothing in the San Francisco Bay Basin Plan contains any such blanket exception, and this exception bears no relation to the actual significance of impacts to water quality or beneficial uses. In fact, the Basin Plan states that "[t]hese water quality objectives are considered *necessary* to protect the present and potential beneficial uses" of San Francisco Bay. (San Francisco Bay Basin Plan § 3.1 [emphasis added].) An impact within this exception would, by the DEIR's own admission, exceed water quality standards, and therefore have a significant impact to water quality. Whether an impact occurs within a couple hundred feet or less of the point of discharge does not reduce the significance of the impact. Moreover, the fact that any particular discharge lasts only a "few" hours ignores the cumulative effects of scenarios where multiple discharges occur within a discrete period of time, potentially overlapping, for only a "few" hours each. Finally, the DEIR fails to define precisely what constitutes a "few" hours, demonstrating a lack of scientific

SFB-1

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precision that undermines the quality of the DEIR as a whole. In sum, these exceptions bear no actual relation to water quality, are ill defined, and must be revised. **SFB-1 cont.**

The DEIR uses this unwarranted exception to water quality standards to declare that turbidity impacts of Shell Terminal vessels are less-than-significant, simply because such impacts would occur for about an hour at a time. (DEIR 4.2-36.) The DEIR argues, without evidence, that assuming such disturbances would only add up to 7.5 percent of the time in any given month, such impacts are less-than-significant. This conclusion is a crude assumption, and demonstrates a lack of rigor in the environmental review process. A violation of water quality standards for 7.5% of every month must be considered to be a significant impact. However, the DEIR fails to simply compare the Project's impact to the Basin Plan's water quality objective, which states that "[i]ncreases from normal background light penetration or turbidity related to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU." (San Francisco Bay Basin Plan § 3.3.19.) **SFB-2**

Lastly, the DEIR states that "operations that would result in changes from background that are not discernible in the local area or region were considered less than significant impacts." (DEIR 4.2-35.) The DEIR fails to clarify, however, how "changes from background" would be determined if such changes are "not discernable." To what specific impacts would this exception apply, and how? **SFB-3**

## II. The DEIR lacks adequate information for meaningful environmental review.

The DEIR fails to meaningfully describe or analyze the impact of Project vessels re-suspending sediment. First, the DEIR admits that "[n]o study has been done to quantify the amount of silt re-suspended by vessels using the Shell Terminal that may be transported into the marina." (DEIR 4.2-37.) An EIR must describe the "physical changes" resulting from the Project. (CEQA Guidelines, § 15126.2.) "The information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public." (CEQA Guidelines, § 15147.) Here, instead, the DEIR simply states that it lacks information on the extent of the impact caused by vessels visiting the Shell Terminal. Hydrometric data must be collected during vessel berthing operations, including an accurate counting of the duration of each operation, and the DEIR must further assess the full range of impacts in order to provide for meaningful public comment. **SFB-4**

In addition, the DEIR's conclusion as to the significance of this impact, Project vessels re-suspending sediment, bears no relation to the impact itself, but rather, compares the extent of the impact caused by Shell-bound vessels to other sources of sediment suspension. This is fallacious: the impact of other sources of sediment suspension provides no information whatsoever about the impact of vessels destined for the Shell Terminal. The DEIR admits that "the Shell Terminal's contribution to sedimentation problems in Martinez Marina is expected to be adverse," but fails to meaningfully describe the physical impact this will cause, or provide any evidence that this impact will be less than significant. (DEIR 4.2-37.)

The DEIR fails to assess the physical impacts that discharge of polluted ballast water will have on San Francisco Bay. The DEIR states that "[n]o information is available on the volume of segregated ballast water discharged annually to San Francisco Bay by vessels associated with the Shell Terminal." (DEIR 4.2-57.) This lack of information renders impossible public and governmental review and comment on the Project's impacts. In order to adequately understand and mitigate this impact, the DEIR must undertake a study of the contents of all ballast water discharges from vessels using the Project site. Such information is crucial for meaningful review of the Project's impacts. Further, the DEIR states that, "beginning March 22, 2006, all vessels operating within the Pacific Coast Region will be required to manage ballast water." (DEIR 4.2-32.) This statement shows that the environmental analysis in this document is severely out of date, and uninformative to the actual Project impacts. **SFB-5**

The DEIR admits that in some cases ballast water discharges will "exceed ambient levels in Carquinez," but avoids any discussion of the impacts of such increased pollution, stating that "the volume of water discharged (2.5 million gallons) is small compared to the volume of water in San Francisco Bay so that concentrations in discharged ballast water would reach background levels rapidly . . . ." (DEIR 4.2-38.) Comparing any one discharge to the volume of the San Francisco Bay is absurd, and provides no meaningful information with which to evaluate the impact of introducing additional pollutants to the Bay. (See also, DEIR 4.2-56, inappropriately comparing individual discharges to the total pollution in the Bay.) To mitigate this significant impact, the DEIR should evaluate Shell receiving and treating ships' ballast and bilge water on the Shell terminal site.

The DEIR fails to provide adequate information to assess the Project's significant impacts resulting from polluted stormwater runoff from the site. The DEIR admits that "[s]tormwater runoff is the largest contributor of pollutants to San Francisco Bay," and that "[h]ydrocarbons and other contaminants that accumulate on surfaces of the Shell Terminal will run off to the ocean during storms." (DEIR 4.2-44.) However, the DEIR completely fails to measure or quantify this significant impact for environmental review, stating that "[c]ontaminants in stormwater run-off from the Shell Terminal pier are unknown." (DEIR 4.2-56.) To enable meaningful review and comment on this impact, the DEIR must provide a complete description of stormwater dynamics at the Project site, including volume, rate, and the specific pollutants contained in any such runoff. All Project site design must be reviewed and certified as meeting all relevant design standards consistent with Chapter 4 of the San Francisco Bay Basin Plan, Implementation Plans, including but not limited to the Contra Costa Watershed Forum. **SFB-6**

The DEIR states that "[n]o data are available on the sediments at Berths #3 and #4," where Shell has dredged in the past, and where, due to sediment deposition, Shell will likely dredge again. (DEIR 4.2-46.) This void of information on the existing environmental conditions at the site precludes any evaluation of the potentially significant impacts of future dredging at Berths #3 and #4. The CEQA Guidelines explain: "An EIR must include a description of the environment in the vicinity of the project, as it exists before the commencement of the project, from both a local and regional perspective. The description shall be no longer than is *necessary to an understanding of the significant effects* of the proposed project and its alternatives." (CEQA Guidelines, § 15125 [emphasis added].) The DEIR has failed to satisfy this burden, because without an understanding of what contaminants exist in Berths #3 and #4, the DEIR provides the **SFB-7**

public and agency decision-makers with no information to understand the potentially significant impact of dredging at these berths. The DEIR compares the impacts of this Project to another dredging project in Contra Costa County where "contaminant concentrations did not exceed water quality objectives," but the DEIR provides no information to show that the dredging projects it references are at all comparable to dredging at Berths #3 and #4, which of course the DEIR is unable to do, not knowing what contaminants exist at those Berths. Finally, the DEIR cannot simply assert that compliance with applicable regulations will necessarily reduce impacts to less than significant levels. As noted above, the DEIR elsewhere argues that non-compliance with water quality standards would *not* result in a significant impact. The DEIR provides no information to explain why some relevant regulatory standards do, and others do not, relate to a significant impact under CEQA. The DEIR provides inadequate information about the DMMO to demonstrate whether the DMMO imposes CEQA-like standards to implement all feasible mitigation measures to reduce any significant impact to a less-than-significant level. (DEIR 4.2-46.)

SFB-7 cont.

Mitigation measure OS-3b could lead to new significant Project impacts, by operating moored vessels in conditions that would otherwise be considered unsafe. The DEIR describes this mitigation measure, stating, "[m]onitoring moored vessels movements enables loading to continue in marginal weather conditions, high velocity current conditions or other conditions where the limits of strain on the mooring lines could result in movement of the vessel resulting in damage to the Shell Terminal and/or vessel." (DEIR 4.1-35.) The DEIR should evaluate any increase in mooring during conditions now considered "marginal," and assess whether the proposed mitigation measure will also mitigate the increase accident rate associated with this change in use.

SFB-8

## III. The DEIR fails to evaluate impacts of mercury in crude oil.

The DEIR fails to quantify the amount of mercury released to the atmosphere, and deposited in San Francisco Bay, as an indirect impact of the Project's crude oil importation. The United States Environmental Protection Agency has recognized the importance to environmental policy of understanding mercury concentrations crude oil. According to the San Francisco Bay Regional Water Quality Control Board, there are about 1700 kg/yr of mercury entering the petroleum refineries in crude oil, much of which is likely being discharged directly and indirectly to the Bay. Mercury contamination has made it unsafe for many people to eat fish caught from the Bay and our local creeks, lakes and reservoirs. We know that oil refineries may be contributing to this problem, although the extent is unknown. The first step in knowing is to require a calculation of the mass of mercury brought to the Bay Area every year in tankers. This data should be included in a revised DEIR for review and comment on this significant indirect impact.

SFB-9

## IV. The DEIR fails to evaluate feasible mitigation measures, and illegally defers formulation of some mitigation measures to a future time.

The DEIR illegally defers the formulation of mitigation measures that are necessary to reduce or avoid the Project's significant adverse impacts resulting from various spills from vessels entering the Bay to use the Shell Terminal. In *Gentry v. City of Murrieta*, the Court of Appeal stated that

SFB-10

mitigation measures may be formalized after project approval *only if*, the lead agency has circulated an environmental review document that (1) identifies and discloses with particularity the project's potentially significant impacts, (2) establishes measurable performance standards that will clearly reduce all of the identified impacts to less-than-significant levels, and (3) describes a range of particularized mitigation measures that, when taken in combination, are able to meet the specified performance standards. (*Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1394-1395; see also CEQA Guidelines § 15126.4.) Here, however, the DEIR simply states that Shell will, after the CEQA review process is over and public review and comment period closed, "prepare a Spill Prevention Plan for grey water, sewage, and other waste water streams and for ships visiting the Shell Terminal that includes Best Management practices (BMPs) specifically to prevent leaks and spills during transfer of liquids between vessels and trucks on the Shell Terminal." (DEIR 4.2-42.) This mitigation fails to meet the standards established by *Gentry* for deferral of mitigation measures for several reasons. First, the mitigation measure fails to include any "measurable performance standards"; second, the DEIR fails to describe any "particularized mitigation measures" that may be included as BMPs; and third, the DEIR offers no evidence to support its conclusion that any such BMPs are able to eliminate such spills to the Bay.

**SFB-10 cont.**

The DEIR states that anti-fouling hull paint on ships arriving at the Shell Terminal will have a significant impact to water quality, but the DEIR fails to evaluate feasible mitigation measures that could reduce or avoid this impact. (DEIR 4.2-43.) For example, the DEIR requires Shell to certify ships' compliance with IMO hull coating standards, but fails to state whether Shell will still accept entry of ships that certify they are out of compliance with IMO standards. Any ship in non-compliance with IMO standards should not be permitted entry, to avoid the harm of leaching anti-fouling paint. The DEIR fails to evaluate whether this would be feasible. The DEIR states that "Shell cannot feasibly require vessels to remove TBT from their hulls until the IMO mandate prohibiting the presence of TBT on ship hulls comes into effect in 2008," but the DEIR fails to consider whether Shell can fund an upgrade to such ships' hull coating. Finally, the DEIR cites to a 2008 IMO standard as a future standard, but fails to discuss why a two year old rule is not yet in effect.

**SFB-11**

The DEIR fails to provide adequate information about polluted stormwater runoff from the site to evaluate particularized mitigation measures that may reduce the Project's significant stormwater pollution to less-than-significant levels. (See *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1394-1395.) The DEIR proposes the future creation and implementation of a SWPPP to reduce and minimize pollutants reaching Bay waters from stormwater runoff at the Project site. (DEIR 4.2-45.) To be effective, the SWPPP must implement BMPs that are tailored to the specific stormwater pollutants discharged from a site. Once these discharges are properly studied and understood, the SWPPP must contain a further iterative process of stormwater monitoring, and BMP review and adaptation, to ensure that BMPs actually do reduce contaminant levels in stormwater discharges to less-than-significant levels, below EPA benchmarks.

**SFB-12**

The DEIR admits that the Project will contribute significant cumulative pollutants to the Bay, and also states that "[p]rojects that involve development in undeveloped upland areas would add to the cumulative impacts of pollutants in urban run-off. Urban run-off is one of the most

**SFB-13**

significant contributors of pollutants to San Francisco Bay." (DEIR 4.2-56.) As a means of mitigating its indirect, direct, and cumulatively considerable water quality impacts, including but not limited to impacts from stormwater runoff, the DEIR should evaluate off-site mitigation measures to reduce or avoid a further increase from development of upland areas. To offset the Project's significant impacts, one such area that the DEIR should consider preserving from development is the Point Molate headlands.[1]

**SFB-13 cont.**

The DEIR states that mitigation measure OS-4 will not reduce the impact of Group V oil transfers to less-than-significant levels, but the DEIR fails to explain why not. (DEIR 4.1-37.) What specific impacts will this mitigation measure reduce, what specific impacts will it be unable to reduce or avoid, and why?

**SFB-14**

## V. The DEIR must be revised and recirculated for public and agency review and comment.

For each of the reasons discussed, above, the DEIR must be recirculated for public review and comment. The CEQA Guidelines provide:

> A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term 'information' can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement.

**SFB-15**

(CEQA Guidelines, § 15088.5, subd. (a).) Further, developed case law requires recirculation of an EIR where review of the DEIR was "so fundamentally and basically inadequate and conclusory in nature" that the public was deprived a meaningful opportunity to comment. (*Laurel Heights Improvement Ass'n v. Regents of Univ. of California* (1993) 6 Cal.4th 1112, 1130 ("*Laurel Heights II*").) As discussed throughout this comment letter, the DEIR lacks substantial information necessary for a meaningful evaluation of the Project's impacts to the existing environment, lacks the necessary information to evaluate whether proposed and deferred mitigation measures will be able to reduce impacts to less-than-significant levels, and fails to consider some mitigation measures that may reduce or avoid significant impacts of the Project. Accordingly, Baykeeper looks forward to receiving a response to these comments, including significant new information in the EIR that will enable a better understanding of the Project's many significant environmental impacts, and an expanded discussion of significant new mitigation measures available to reduce or avoid the Project's significant adverse impacts.

[1] See http://www.ci.richmond.ca.us/index.aspx?NID=270; http://www.baycrossings.org/Archives/2003/09_October/point_molate_waterfront_dream_or_terrorist_nightmare.htm; http://www.berkeleydailyplanet.com/issue/2009-08-20/article/33563

Thank you for your consideration of these comments.

Sincerely,

Jason Flanders
Staff Attorney, San Francisco Baykeeper

## RESPONSES TO COMMENT SET 4: SAN FRANCISCO BAYKEEPER

SFB-1 Criteria or thresholds in tidal settings can be described as tidally averaged, percentage of time exceeded, chronic, and acute to account for the time-varying condition of these environments, and are applied in such a way to allow for exceedances of thresholds within exclusion or mixing zones. The State Water Resources Control Board (SWRCB) State Implementation Policy for Toxic Standards for Inland Surface Waters, Enclosed Bays and Estuaries (2005) allows each Regional Water Quality Control Board (RWQCB) to specify "mixing zones" or "zones of initial dilution" with respect to compliance with water quality objectives. Many Water Quality Based Effluents Limitations in the San Francisco Bay area are based on minimum required dilution rates of 10:1.

As discussed in Final Environmental Impact Report (EIR) Section 4.2.4.1 (Shell Terminal Routine Operations and Potential for Accident Conditions, Impact WQ-1), intermittent turbidity associated with vessel transit to and from the Shell Martinez Marine Terminal (Shell Terminal) is a normal expected effect, and is already part of background conditions and the Project baseline. Furthermore, since vessel transit is intermittent, it is not anticipated to cause long-term changes to water quality. The specific impacts of the Project are quantified (in terms of amount and length of time) and mitigated, if required, throughout the EIR. See also Response to Comment SFB-2.

SFB-2 As noted in EIR Section 4.2.3 (Impact Significance Criteria), significance criteria include adherence to the water quality objectives contained in the San Francisco Bay Water Quality Control Plan (Basin Plan). Chapter 2 of the Basin Plan provides that navigation is a beneficial use of surface waters. Transit of vessels within San Francisco Bay and the Carquinez Strait is consistent with this use in designated shipping channels and anchorages, and the intermittent turbidity caused by ship and tug propellers is a normal and expected physical effect of this activity. Chapter 3 of the Basin Plan provides that *"Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU"* [Nephelometric Turbidity Units].

EIR Section 4.2.4.1 (Shell Terminal Routine Operations and Potential for Accident Conditions, Impact WQ-1) provides a description of turbidity impacts caused by typical propeller-induced sediment re-suspension, including existing vessel frequency and draft, and describes changes in future vessel activity. The EIR also provides estimates of the frequency of the Shell Terminal use to demonstrate the proportion of time such effects would occur, and concludes that intermittent re-suspension of bottom material by vessels would not degrade beneficial uses of Carquinez Strait and Suisun Bay. Specifically, turbid plumes of water caused by vessel propellers would be

short-lived and persist less than 20 minutes, causing a brief, localized depression in dissolved oxygen that would be rapidly dispersed by tidal currents in the area.

The numerical objectives in section 3.3.19 of the Basin Plan related to turbidity (10 percent increase where background is greater than 50 NTU) refer to increases in turbidity related to waste discharges, not vessel propeller-induced turbulence and associated re-suspension of existing sediments. In addition, the California Clean Coast Act (Senate Bill [SB] 771, Chapter 588, Statutes of 2005) prohibits the discharge of hazardous wastes, other wastes, or oily bilge water into California waters, and also prohibits the discharge of greywater sewage from vessels to shoreside reception facilities. Shell does not receive or treat bilge water or other liquid wastes from vessels. Furthermore, Mitigation Measure (MM) WQ-4 would prohibit the discharge of non-segregated ballast water at the Shell Terminal.

**SFB-3** The full quote is found in EIR Section 4.2.3 (Impact Significance Criteria) in a discussion of how significance of impacts is considered in the context of contaminant levels for the Project area. The Final EIR states, "*For example, operations that would result in changes from background that are not discernable in the local area or region were considered less than significant impacts.*" Impacts that are not discernable from background levels of chemical and physical constituents are not considered to be significant.

**SFB-4** See Response to Comment MAR-1

**SFB-5** Ballast water and bilge water are two different types of discharges and are managed separately. Bilge water is a hazardous substance under State and Federal law and is therefore not allowed to be discharged in state waters. Shell does not allow the discharge of bilge water at its marine terminal.

Ballast water controls (for both segregated and non-segregated ballast) are described in detail in EIR Section 2.3.2 (Physical Description of the Shell Terminal), and ballast water impacts are extensively discussed in Section 4.2.4.1 (Shell Terminal Routine Operations and Potential for Accident Conditions, Impacts WQ-2 and WQ-4). Non-segregated ballast is a hazardous waste and illegal to discharge in California waters. Shell has not accepted non-segregated ballast water at the Shell Terminal in recent years, and this practice is viewed as a very unlikely activity. However, the U.S. Coast Guard (USCG) has issued a Certificate of Adequacy to Shell that allows vessels to discharge non-segregated ballast water while moored at the Terminal and defines the conditions that must exist to allow such discharge. If Shell were to receive non-segregated ballast water, depending on the source of water, it would either be treated at the Shell Refinery wastewater treatment plant or sent offsite. Vessels that call at the Shell Terminal are not owned by Shell and may call at multiple marine terminals during one voyage.

Per California law, vessels may discharge properly managed segregated ballast water at the Shell Terminal. The California State Lands Commission (CSLC) tracks the volumes of segregated ballast water discharged in the Carquinez Straits including the volume of segregated ballast discharged from tank vessels. This information may be found in the CSLC Biennial Reports on the California Marine Invasive Species Program (see Takata et al. 2011).

Discussions of Impacts WQ-2 and WQ-4 state that all vessels calling on the Shell Terminal shall comply with current state and federal ballast water management regulations, including management for nonindigenous species and pollutants. The Final EIR also imposes MMs WQ-2 and WQ-4 to avoid or reduce potential ballast water discharge impacts. Ballast water laws and regulations have changed since the issuance of the Notice of Preparation (NOP) in 2004, and the Final EIR has been revised to reflect the new and updated laws and regulations (see Section 4.2.4.1 [Shell Terminal Routine Operations and Potential for Accident Conditions, Impact WQ-2].

**SFB-6** Discharges from both the Shell Terminal and adjacent Shell Refinery are covered under one National Pollutant Discharge Elimination System (NPDES) permit, Permit No. CA00005789, issued by the San Francisco Bay RWQCB. Shell's Stormwater Pollution Prevention Plan (SWPPP) also applies to both the Shell Refinery and Shell Terminal. The San Francisco Bay RWQCB requires SWPPPs to list the Best Management Practices (BMPs) that a discharger will use, and to include a visual monitoring program, chemical monitoring program, and sediment monitoring plan; this requirement is incorporated in MM WQ-9 (EIR Section 4.2.4.1 [Shell Terminal Routine Operations and Potential for Accident Conditions, Mitigation Measures for WQ-9] and Section 6.0 [Mitigation Monitoring Program]).

The portions of the Shell Terminal subject to stormwater runoff comprise a small fraction of the total Shell Refinery and Terminal sites. Any oil leaks from transfer equipment at each active Terminal berth are captured by a collection system, consisting of a series of pans and sumps underlying each berth, thus minimizing the potential for stormwater contamination from leaking equipment (see EIR Section 2.3.2 [Physical Description of the Shell Terminal]). As provided in existing and required stormwater and spill minimization control plans and procedures, stormwater from the collection system and sanitary wastewater from the Shell Terminal are pumped through a pipeline connecting the wharf to the Shell Refinery's treatment plant. There, the waste stream is commingled with stormwater and wastewater from the Refinery, treated (primary, secondary and tertiary [i.e., chemical precipitation and granular activated carbon] treatment), and tested. If the tested water meets effluent limits established for a broad range of constituents, along with other criteria and conditions imposed by the San Francisco Bay RWQCB, it is discharged to the Carquinez Strait through a permitted outfall pursuant to Shell's NPDES permit. Upgrades to Shell's collection system were initiated in

2006 and were completed in 2008 (see EIR Section 4.1.4.1 [Spill Response Capability and Potential for Public Risk at the Shell Terminal, Impact OS-1]).

The Shell Refinery and Terminal are also subject to the following regulations.

- Regulations promulgated by the U.S. Environmental Protection Agency (EPA) that require the preparation of a Spill Prevention Control and Countermeasure (SPCC) Plan (40 Code of Federal Regulations [CFR] 112.1-112.15).
- EPA and California Department of Fish and Game (CDFG) Office of Spill Prevention and Response (OSPR) regulations covering development and maintenance of spill response and contingency plans (40 CFR 112.20 and Title 14, California Code of Regulations [CCR] §§ 815-817) (see EIR Section 4.2.4.1 [Shell Terminal Routine Operations and Potential for Accident Conditions, Impact WQ-9]).
- Regulations requiring owners and operators of aboveground storage tanks that store more than 1,320 gallons of oil to have SPCC Plans.

Plans have been prepared in accordance with these regulatory requirements for both the Shell Refinery and Shell Terminal. In addition Shell has a Wharf Operations Manual governing spill prevention, stormwater collection and related aspects of marine terminal operations. Shell's Wharf Operations Manual complies with 33 CFR 154.106, which has specific BMPs for spill response at the Shell Terminal. Recognized practices to manage stormwater discharges from, and to prevent spills associated with, operations at the Shell Terminal have already been developed by Shell and have been in place for many years. These measures and others implemented to prevent and respond to runoff and potential oil spills associated with Shell Terminal and Refinery operations are detailed in the numerous plans and related reports developed pursuant to applicable regulatory agency requirements, such as Shell's Wharf Operations Manual, NPDES permit, SWPPP, SPCC Plan, and its Oil Spill Response Plan (OSPR Control No. F2-07-0114).

**SFB-7** As noted in EIR Section 4.2.4.1 (Shell Terminal Routine Operations and Potential for Accident Conditions, Impact WQ-10), Berths #3 and #4 are not in use, and dredging would be necessary to resume operation at these berths. Shell has no immediate plans to initiate dredging; however, should Shell propose to dredge Berths #3 and #4 during the lease period, EIR Section 4.2.4.1 (Shell Terminal Routine Operations and Potential for Accident Conditions, Impact WQ-10 Maintenance Dredging) covers the analysis of maintenance dredging (see also Impact BIO-3, Maintenance Dredging, and Impact FSH-4, New Dredging at Berths #3 and #4).

Any dredging would be subject to all appropriate federal, state and regional agency review and approvals prior to dredging and disposing of dredged material. Agency review and approval is typically required by the CSLC, CDFG, Bay Conservation and Development Commission (BCDC), San

Francisco Bay RWQCB, San Francisco District U.S. Army Corps of Engineers (USACE), EPA, and U.S. Fish and Wildlife Service (USFWS). The approvals may require testing and analysis of sediments and additional environmental review and public review and comment.

Any dredging at Berths #3 and #4 would also be subject to Dredged Material Management Office (DMMO) requirements. DMMO is a joint program of BCDC, San Francisco Bay RWQCB, CSLC, USACE, and EPA; the CDFG, National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries), and USFWS also provide advice and expertise to the process. The DMMO cooperatively reviews sediment quality sampling plans, analyzes sampling results, and makes suitability determinations for material proposed for disposal in San Francisco Bay. The goal of this interagency group is to increase efficiency and coordination between the member agencies and to foster a comprehensive and consolidated approach to handling dredged material management issues (www.spn.usace.army.mil/conops/dmmo.htm).

**SFB-8** As explained in EIR Section 4.1.4.1 (Spill Response Capability and Potential for Public Risk at the Shell Terminal, Mitigation Measures for OS-3), MM OS-3b ensures that critical information is provided to the Terminal Person in Charge (TPIC), enabling more informed decisions about operational conditions and constraints. The upgrades would be designed to provide additional information to improve the safety of the existing operations, and would not change the use of the facility or result in increased accidents.

**SFB-9** Unrelated to this Project, five San Francisco Bay area refineries, including the Shell Martinez Refinery, completed a four-year study to quantify the amount of mercury released to the atmosphere and deposited in San Francisco Bay as a result of refining crude oil. This study was in response to a February 2005 request by the San Francisco Bay RWQCB pursuant to California Water Code (CWC) section 13267. The final report to the RWQCB, entitled "*Bay Area Petroleum Refinery Mercury Air Emissions, Deposition, and Fate"* (June 2009), concluded that over the four-year study period approximately 240 kilograms (kg)/year of mercury entered the petroleum refineries in crude oil, much of which was accounted for in waste shipped offsite.

The total amount of mercury entering the Bay contributed by the five refineries, by either direct or indirect aerial deposition, was determined to be approximately 1 kg/year, or less than a one percent contribution to all atmospheric deposition sources to the Bay. The amount of mercury contributed by the Shell Refinery was found to be a small fraction of the total mercury loadings from other sources in the region and was determined to be an insignificant contributor of mercury to the Bay. The vessels that call at the Shell Terminal often call at multiple marine terminals during one voyage; thus, Shell is not responsible for requiring tankers to calculate the mass of mercury they bring to the Bay Area.

**SFB-10** No discharges or transfers of greywater, sewage, or other wastewater streams from vessels to trucks or other receptacles are allowed by Shell at its marine terminal. MM WQ-5 addresses inadvertent spills from a vessel occur while at the Shell Terminal and includes performance standards. See EIR Section 4.2.4.1 [Shell Terminal Routine Operations and Potential for Accident Conditions, Mitigation Measures for WQ-5] for revised text, and Responses to Comments SFB-6 and SFB-12 for a discussion of Shell Terminal spill prevention practices. Shell also has numerous plans and related reports to address spill prevention developed pursuant to requirements of the regulatory agencies, such as its Wharf Operations Manual, NPDES permit, SWPPP, SPCC Plan, and Oil Spill Response Plan (OSPR Control No. F2-07-0114).

**SFB-11** The EPA 2008 Vessel General Permit (VGP) regulates discharges incidental to the normal operation of vessels operating in a capacity as a means of transportation, and includes general effluent limits applicable to all discharges and requirements for certain vessel types; more specifically, Section 2.2.4 of the Vessel General Permit (VGP) bans the use of tributyltin (TBT) on vessels operating in U.S. waters (http://cfpub2.epa.gov/npdes/vessels/vgpermit.cfm). However, Shell does not own vessels or barges calling at the Shell Terminal; such vessels also may call at multiple marine terminals during a voyage. MM Impact WQ-7 and MM WQ-7 have been revised to require Shell to notify each vessel operator of the TBT prohibition and obtain relevant information from each vessel operator regarding the ship's compliance with International Maritime Organization (IMO) Hull Coating Standards and the EPA VGP (see EIR Section 4.2.4.1 [Shell Terminal Routine Operations and Potential for Accident Conditions, Mitigation Measures for WQ-7]).

**SFB-12** Measures that are currently in place with respect to activities at the Shell Terminal are described in the Final EIR (see for example: Response to Comment SFB-6; Sections 2.0 [Description of the Proposed Project] and 4.2.4.1 [Shell Terminal Routine Operations and Potential for Accident Conditions, Impact WQ-9]; and MMs for Impact WQ-9). Existing pipelines transfer feedstocks and products between the wharf and various land-based equipment and facilities. High pressure relief systems have been installed on all of these pipelines, with daily inspections conducted on those sections of the lines running from the land's end out to the wharf. When these pipelines are not being used to transport feedstock or product, they are closed at the land's end in order to prevent a release if a line is damaged while not in active service.

With regard to operations conducted on the wharf, procedures are in place to prevent spills during the connection and disconnection of all loading hoses. Two levels of steel-plated drip pans are installed underneath those portions of the two berths where loading operations occur and where piping and equipment having the greatest potential to leak oil are located. Any oil collected in the drip pans drains to a large sump situated at each berth; sump contents are pumped to a pipeline for transfer to the adjacent Refinery

treatment plant. The lower-level drip pans and sumps are equipped with high level alarms to detect and avoid overflows. Primary and backup pumps located at each sump are designed to operate automatically when liquid in the sump reaches a specified level, or when an alarm is sounded. To ensure effective operation, the pans and sumps are periodically inspected and cleaned, and the alarm systems are tested quarterly.

If an oil spill was to occur from wharf-related operations, response procedures would be initiated by designated Shell personnel who have undergone extensive training and are able to promptly respond to the situation using equipment and materials maintained on-site. Shell is also a member of the oil spill response organization Marine Spill Response Corporation (MSRC), which maintains resources necessary to timely respond to more significant spills if Shell needs additional response capability.

**SFB-13** See Responses to Comments SFB-6 and SFB-12 for a discussion of Shell Terminal spill prevention practices. The EIR also includes MMs WQ-2, WQ-4, WQ-5, WQ-7, WQ-8, WQ-11, and WQ-12 to reduce potential Project-related adverse impacts to the water quality of San Francisco Bay.

**SFB-14** "Group V" oils (oil products that do not float on the surface) are addressed separately because of the unique physical properties and difficulty associated with responding to their release. If Group V oil is handled at the Shell Terminal, MM OS-4 requires Shell to address OSPR planning and response requirements that entail specialty response equipment, training, and procedures capable of responding to a release of Group V oil. Consistent with the impact determination for Group I-IV oils (see EIR Section 4.1.4.1 [Spill Response Capability and Potential for Public Risk at the Shell Terminal, Impact OS-3]), MM OS-4 would reduce impacts of small spills. However, the consequences of any large spill (greater than 50 barrels) remains significant.

**SFB-15** Recirculation of an EIR is not required unless significant new information is added to the document after close of the initial public notice and comment period, but prior to certification (Public Resources Code § 21092.1; *Laurel Heights Improvement Assn. v Regents of the University of California* (1993) 6 Cal.4th 1112. The Court in Laurel Heights clarified the meaning of "significant new information" and that definition has been incorporated into the State CEQA Guidelines (§ 15088.5), which provides in relevant part as follows:

*(a) A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid*

*such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation include, for example, a disclosure showing that:*

*(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.*

*(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of significance.*

*(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.*

*(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded…*

The comment does not provide new information or contend that the conditions in subsections 1 through 3 above are present; the contention is that subsection 4 (the Draft EIR was inadequate and conclusory in nature) applies to this EIR. These Responses to Comments clarify that the issues raised by the commenter are discussed and analyzed in the EIR and the documents and regulations discussed at length therein, and that ample evidence and facts are presented to allow meaningful public review and comment.